The Indian Poultry Gazette.

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EDITORIAL NEWS.

It is with great regret we have to announce in this issue that the news has reached us of the death of our old fried and Clubmate Mr. Wiggal.

We feel sure all members will join us in extending their deepest sympathy to Mrs. Wiggal in her great loss.

We also understand that Mrs. Wiggall, as a result of her husband's demise is feeling the strain financially and have been asked to inform our members that we shall be pleased to receive donations to a central fund for her assistance or if members so like, her address is No. 9 Punjab Hotel, Simla, for the meantime and they could communicate with her direct.

Following our address slip which was sent out with the March issue we are pleased to be able to inform readers and subscribers that we have been very busy sending copies of the Gazette to people interested in poultry and our Gazette list has already jumped up by a good few new readers as a result. We feel sure that still there are countless really enthusiastic poultry fanciers who would be only too pleased to avail themselves of the chance to subscribe to India's only really poultry journal did they but know that such existed.

Contrast to this we publish a letter from a poultry fancier in India and would be pleased to obtain our readers ideas on the subject.

Personally we as editor learn a bit from it each month and we defy any person to prove to us that they have learned All there is to be learned about *poultry especially in India.*

Eleswhere in this issue will be found information regarding the 4th Edition of "Poultry Farming in the East" by Mrs. A. K. Fawkes and we earnestly submit this is a book no poultry keeper in India should be without.

We must apologise to our many readers who wrote us a bit too late to obtain copies of the "Feathered World" Year book from our first consignment. This was a big surprise to us as we arranged for the same number as last year and we very soon run out of stock. However by the time this reaches our readers we hope to have despatched to all those we have kept waiting. No doubt the news

has reached many that this year's "Feathered World" year book was surpassed all previous editions.

This bring us to our own Year Book, 1931 contains many new features and will no doubt find its way into the hands of most of our Indian breeders, and fanciers. Mr. Yule has spared no pains to surpass his previous edition and we hope members will show their appreciation by handing their own copy on to a friend where possible.

The first edition of "Bharatiya Poultry Samachar" will, we hope be published early in the Bengali New Year and as considerable correspondence concerning this paper which will be the only paper dealing solely with poultry, written in Bengali, is being sent to us we trust subscribers will note that the Honorary Literary Editor is Mr. P. Bhattacharyya, 88, Cornwallis Street, Calcutta, to whom all requests for copies or advertisement space should be addressed.

The revisal of awards at the future exhibitions to be held under Indian Poultry Club rules has with an occasional exception been completed and as we promised to give this information in April we have therefore done so but we would point out to members that there is likely to be slight alternations in some of the awards which will if made be duly notified in later editions of the Gazette.

We have one new award in the shape of a cup which has very kindly been given by Mr. W. E. Yule, our late Honorary Secretary which is for closed competition for the best. Australorp and we feel sure seeing the way in which the Australorp has sprung into prominence that this will be a very popular award and on behalf of our members we thank Mr. Yule very much for his generosity in presenting the 'Yule' cup.

We have received complaints from subscribers to the Gazette that some do not get their copies regularly monthly and we would ask any subscriber who has found irregularity in this direction to communicate with us in their as well as our interests.

We can assure subscribers that our mailing list is attended to with every care and the fault lies entirely with the Postal authorities and not with us so that we *trust members will not condemn the Gazette but let us* know immediately there is any irregularity.

TEST OF EGGS.

I have had 15 eggs from Mrs. Grain of Kanchrapara, E. B., submitted to me for fertility test and beg to report as under.

Breed. White Leghorn.

All eggs over 2 ozs.

Shell texture and shape, good.

Result of complete hatch 14 chicks. total 93·5%.

One embryo succombed on 9th day.

Clears Nil.

Method of incubation. Artificial.

All chicks hatched within 8 hours of first out and no trouble in hatching noted.

All chicks are alive and healthy.

BUFF ROCK.

? ? ?

HAVE YOU

ORDERED

YOUR COPY

OF THE

INDIAN POULTRY CLUB

YEAR BOOK.

? ? ?

TEST OF APPLIANCES.

I have had an "Eclipse" sprayer submitted to me for experiment and report and am pleased to be able to say this is a very good proposition and fills a longfelt want in the poultry yard.

As a disinfectant limewashing or general spray it was found to be the thing for getting into all the corners and cracks one cannot do with a brush and it cut down the work to about half the time usually taken to limewash one house it was used on, making a most thorough job.

In addition I used it as a cod-liver-oil sprayer spraying the oil into the mash with a result that there was no waste and it was possible to distribute it into the mash with far more success and evenness than the messy way of mixing it with the hands.

The sprayer is made of good sound material and is as near foolproof as possible which is a great asset and any servant can use it to spray limewash or disinfectant wherever required. It should be a boon to stables, poultry farms, kennels etc., or even in the household. It takes down easily and is packed in a box 2 feet long by 3 inches wide only.

The price of Rs. 17 is exceptionally moderate and no amateur should be without one in his possession.

It is marketed by Messrs. Barlow and Company advertisers in this Gazette and I strongly advise readers to go for one. It is not a gadget but a really good sound investment which I can thoroughly recommend.

BUFF ROCK.

HEAVENLY RELIEF.

Judge: You've stolen no chickens?

Sam: No; sah.

Judge: Any turkeys?

Sam: No, sah.

Judge: Discharged.

Sam (grinning): Boss, I sure was skeared to death you say ducks.

WONDERFUL!

Grandfather took his little Jean down cellar where a hatch was just coming off the incubator.

"Isn't it wonderful," he asked her, "to see these baby chicks come out of their little shell houses?"

"Yes," remarked little Jean, "but I think it's wonderfuller how they got in there, grandpa."

ON KEEPING POULTRY.

Advances and Defects of In-Breeding—Value of Cod Liver Oil.

Preparations for the 1931 breeding season presents a good opportunity for reviewing the problem of inbreeding, a phase which is thought by some people to be of much importance.

Quite a considerable amount of work has been devoted to this problem, both in this country and abroad, and on the whole the results are not favourable to inbreeding. The results may be classified under the headings "Show birds" and "Utility," *i.e.*, egg production.

In the former class there is some reason for inbreeding, since show points may be more definitely fixed in a strain if outcrossing is kept at a minimum. For instance in the case of single-comb breeds although two different strains may appear pure single combs, yet if one of them carries a rose comb factor in its genetical make up, there is always a possibility that in crossing the two strains the rose comb may show up again owing to the release of the restraining influence. With such smaller differences as special colours of plumage, the risk is rather greater. Consequently there is not only an excuse, but also a positive reason for a degree of inbreeding.

With regard to the utility purposes, however, the case is different. Such extrenal characteristics as exist in a utility bird, such as full abdomen, head points, etc., are present merely because of the recundity of the bird and could not be fixed in a strain by inbreeding.

RESULTS OF EXPERIMENTS.

Actually the evidence shows that inbreeding is opposed to utility purposes as a general rule, but more in cases where the heredity is restricted than in cases of more varied heredity.

The results of some experiments on inbreeding in relation to egg production conducted by the

Massachusetts Agricultural Experiment Station show that:

The data presented do not indicate that sexual maturity was consistently and regularly retarded by inbreeding.

Body weight at first egg was not affected by inbreeding.

Winter pause, low intensity, and low persistency were probably concomitants of inbreeding.

Inbreeding tended to lower production.

Inbreeding decreased fertility.

Inbreeding probably decreased hatchability.

Inbreeding tended to lower the sex ratio.

Inbreeding reduced chick vigour as well as vigour of pullets during their first laying year.

Uniformity in characteristics affecting fecundity was little affected in the inbred groups from restricted ancestry, but the check birds from more diverse ancestry became more uniform in these characteristics when inbred.

Inbred strains, when intercrossed, gave progeny superior to those from second and third years of inbreeding, but not equal to the foundation stock.

THE MONTH'S EGG DISH.

SAVOURY EGGS.

Ingredients.—4 eggs, 1½ ozs. of cold left-over boiled fish, 1½ ozs. breadcrumbs, ½ oz. butter, ½ teaspoonful anchovy sauce, 1 teaspoonful of chopped persley, salt, cayenne.

Method.—Grease 6 small pyrex of fireproof dishes. Mix together fish, anchovy sauce, parsley, salt, cayenne and butter and put a little into each dish and break an egg into each. Cover with bread crumbs and add a small piece of butter. Bake in a moderate oven until set and serve hot garnished with parsley.

STANDARD OF SELECTION.

In this experiment, inbreeding operated to intensify inherent weaknesses existing in the foundation stock. This trial, therefore, furnishes striking evidence of the importance of most rigorous standards in selecting stock for inbreeding purposes.

On the whole, these studies furnish no evidence of the advantage of inbreeding over the ordinary method of flock improvement by rigid selection for characteristics, affecting fecundity when close matings are avoided. Since desirable fecundity traits for the most part are transmitted in Menedelian fashion, more satisfactory progress may be made by selection on the unit factor basis.

VALUE OF COD-LIVER-OIL.

The United States Department of Commerce have issued a short summary of the effects of cod-liver-oil in animau feeding, of which an extract is given below. Experiments of the various investigators feeding cod-liver-oil may be summarised as follows:—

(1) The vitamin content of cod-liver-oils varies according to methods of manufacture, food and condition of the fish, and other factors influencing the quality of the oils; therefore, an assay of cod-liver-oils purchased for feeding purposes is necessary

(2) Growth of young farm animals is promoted to the extent that Profitable returns can be realised from the marked increases in weight and rapidity of growth.

(3) By aiding calcium and phosphorus assimilation, cod-liver-oil assures strong, well-formed bones in growing animals,

(4) The iodine content of milk is increased by feeding cod-liver-oil.

(5) All authorities are agreed that the mortality rate in baby chicks is reduced considerably.

(6) Ruffled plumage in poultry is prevented by feeding a good grade of cod-liver-oil.

(7) There is some difference of opinion as to the improvement in egg production, but the majority of investigations, particularly those of more recent date, show that cod-liver-oil increases egg production.

(8) Likewise, there is some difference of opinion regarding the influence of cod-liver-oil on the

MISSION POULTRY FARM,

ETAH, U. P.

SPECIALIZES IN :—

DUAL PURPOSE EXHIBITION AND UTILITY R. I. REDS.
EXHIBITION AND UTILITY MINORCAS.
EXHIBITION AND UTILITY WHITE LEGHORNS.

Our recent Wins.

CALCUTTA POULTRY EXHIBITION, DECEMBER 1929.

5 Challenge Cups, 3 Open Specials, 9 Firsts, 7 Seconds, 3 Thirds, 3 V. H. C. Including BEST BIRD IN THE SHOW, with a R. I. RED PULLET ; I. P. C. Challenge Cup. for the BEST R. I. RED COCKEREL and Galstaun Challenge Cup for the BEST LEGHORN.

ALL-INDIA POULTRY EXHIBITION, LUCKNOW, JANUARY 1930.

5 Challenge Cups, 7 Firsts, 4 Seconds, 2 Thirds, 1 V. H. C., 2 Reserve. Including I P. C. Challenge Cup for BEST R. I. RED COCKEREL and Galstaun Challenge Cup for BEST LEGHORN.

Eggs for Hatching.

R. I. REDS. EX-UTILITY	**Rs. 30/-** per Dozen.
R. I. REDS UTILITY	**Rs. 18/-** per Dozen.
EXHIBITION MINORCAS (Imported Pen) ...	**Rs. 30/-** per Dozen.
UTILITY MINORCAS	**Rs. 18/-** per Dozen.
EXHIBITION LEGHORNS (Dewar's) ...	**Rs. 24/-** per Dozen.
UTILITY LEGHORNS	**Rs. 18/-** per Dozen.

Packing and despatch free. 15 eggs sent to the Dozen.

BREEDING STOCK FOR SALE.

Cocks, Cockerels, Hens, Pullets, Exhibition White Leghorns. Rs. **15**/-, **20**/-, and **25**/- each.
Utility White Leghorns. Rs. **10**/-, **15**/- and **20**/- each.

Crate and Freight extra at cost.

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hatchibility of eggs, but most of the authorities are of the opinion that hatchability is affected favourably.

(9) The reports on five investigations indicated no improvement in the fertility of eggs, but the work of Dowell (1927) revealted 95 per cent. fertility of eggs as a result of cod-liver-oil feeding, whereas in the controls the fertility was 81 per cent.

(10) Two reports mention the effect on the texture of egg shells, one indicating an improvement, and one stating that no appreciable increase in weight of egg or texture of shell was observed.

GREAT MEDICAL VALUE.

(11) All sources of data show that good cod-liver-oil has great therapeutic (medicinal) value.

(12) Opthalmia, an eye disease resulting from a deficient diet, is prevented or cured through feeding cod-liver-oil.

(13) Rickets, resulting from a deficiency in bone formation, is prevented or cured.

(14) Cod-liver-oil is beneficial in the treatment of tuberculosis in guinea pigs.

(15) Vitamin D in cod-liver-oil is very effective in preventing pneumonia in guinea pigs and "snuffles" in rabbits.

(16) The recovery of dogs from distemper is hastened.

(17) There seems to be general argeement on the recommendation of doses as follows:—

Poultry, 2 per cent. or 1 pint per 100 birds per week.

Pigs, 0·25 ounces to 1 ounce daily.

Cows, 2 ounces daily.

(18) The United States Department of Agriculture Bulletin No. 1033 rates cod-liver-oil 97·7 per cent. in digestibility.

(19) In interpreting the results of the studies made on the effect of storage on cod-liver-oil mixed in the ration in advance of feeding, it is evident that the vitamin A potency of the oil diminishes materially, and there is some indication that the effectiveness of vitamin D is slight impaired, unless great care is observed in regulating the conditions of storage as set forth in this article. Poultrymen of the United States Department of Agriculture recommend that the cod-liver-oil be mixed in the ration not sooner than ten days in advance of feeding.

PREVENTING OILY TASTE.

(20) The feeding of cod-liver-oil in proper doses to farm animals does not give the meat an oily taste if the feeding of cod-liver-oil is dis-continued a short time before the animals are slaughtered.

(21) Report of cod-liver-oil poisoning of calves and swine indicate that the animal feeder should select a good grade of cod-liver-oil and avoid overdosage.

(22) Attempts to cure polyneuritic fowl by the administration of cod-liver-oil were unsuccessful, which means that cod-liver-oil is lacking in vitamin B. Cod-lver-oil also has scorbutic (scurvy) properties, indicating a deficiency of vitamin C.

(23) The comparative value of cod-liver-oil and irradiation is still somewhat in doubt. It is safe to say, for the present at least, taking into consideration the factor of economy, that as far as the feeding of farm animals is concerned, cod-liver-oil appears to be preferable to anything else.

OVUM

fortifies the Constitution.

TO have healthy birds there must be a strong constitution. To secure this, OVUM can be specially recommended. Its tonic properties are such as to fortify the constitution, so laying a good foundation, enabling birds to withstand wear and tear more successfully.

Results certainly prove that OVUM aids poultry in resisting ills to which they are liable in India.

The use of OVUM also strengthesn the ovaries and enables birds to recover more quickly from the strain of laying an egg—therefore they are the sooner ready to lay again.

YOUNG CHICKS

ALL young birds need care and attention, without which failure is sure to follow. Keep your chicks strong, healthy, growing and thriving by sprinkling a little OVUM in with the soft food. It is astonishing how rapidly young birds so fed will develop and early become a source of profit and pleasure. All poultry keepers should use OVUM when rearing young birds.

Briefly the use of OVUM for young birds assures healthy poultry, sturdy growth and rapid development.

No fear need be entertained of using OVUM. It is perfectly harmless and can be used practically from the start.

A sprinkling of OVUM in the proportion of a teaspoonful for 30 chicks will lay a firm foundation on which growth, health and development will follow naturally.

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Descriptive Literature on Application.

3.

Preserve your houses by frequent limewashing, inside and creosoting outside: Save your birds by effective disinfecting; decrease mortality and increase production by spraying Cod Liver Oil into the feeds.

LET US SPRAY!

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Save money by doing the above tasks with an ECLIPSE sprayer, the best in the world for the poultryman, stableman, and kennelman.

Hand size - - - Rs. 17/- only.

Write us for particulars, and discriptive literature.

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2.

GRIT

POULTRY SHELL GRIT.

YOUR poultry cannot thrive without grit; it is essential to them as your teeth are to you. Shell grit assists in the process of grinding the corn in the fowl's gizzard, and therefore assists in the assimilation of the food. Our grit also contains all the lime that is necessary for the fowls, and, prevents soft shelled eggs. Its price brings it within the reach of all. The grit is ready crushed, in three grades, *i.e.*, Coarse, Medium and fine, and is supplied in 1 maund, ½ maund and ¼ maund bags, at Rs. 4, Rs. 5 and Rs. 6 per maund, F. O. R. Mehsi, B. & N. W. Ry. When ordering state whether to be sent by goods or passenger train.

APPLY TO:

THE NORTH INDIA POULTRY GRIT WORKS,
Champaran District. Mehsi P. O.,
1. **BEHAR.**

Australorps.—Eggs from my Prize winning Australorps ... Rs. **18/-** per dozen.

These birds secured eight awards in the 1931 ALL INDIA EXHIBITION.

White Leghorns.—Eggs from these birds won. **2nd** Prize and special cup ... Rs. **12/-** per dozen.

15 eggs sent to the dozen in full satisfaction cash with order.

Not V. P. P.

Young Stock from these two breeds available and full prices and particulars can be had on application.

Mrs. R. GRAIK,
(Member British Australorp Club & S.P.B. Asson)
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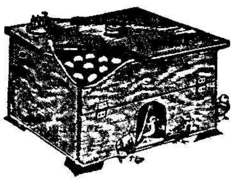
Kanchrapara,
E. B. Rly.

3-m.



The Celtic Incubator and rearer, 20 eggs size Rs. 30 eggs Rs. 30. 45 eggs Rs. 35 Complete with be English Thermometer. Capsule and printed instructio Profitable Poultry Farming in India Booklet Re. "Eggon" one packet makes twelve fowls lay cont nuously six months Rs 2. "Preserveg" preserves eggs ans. 6. Tick Proof Perch Brackets Rs. 2-8 pa Egg testing lamps Rs. 3. Coloured celluloid rings fo size ans. 4. Numbered rings ans. 8. Chick rings ans. per dozen. Safety egg boxes ans. 12. Automatic fou tains chick Rs. 1-8. Fowl size Rs. 2. Chick troug Rs. 1-8. Best British made Incubator Capsules Rs. Thermometer Rs. 5. Flint and limestone grit chi size fowl size 7 lbs. Rs. 1-4. Chick rearing meal 5 lb Rs. 2. Poultry laying meal 7 lbs. Rs. 2. Poultry Remedi D. R. Cholera and Diarrhoea cure D. R. chicken P cure D. R. Vim Tonic pills. D. R. roup cure "Tickl kills ticks, all Rs. 2 each. Full detailed illustrat list free. ROSS P. P. G. Poultry Appliances.

IGATPURI G. I. P.

12.

INDIAN POULTRY CLUB CUPS.

The following is a revised list of challenge cups both open and closed for competition at shows held under the auspices of the Indian Poultry Club to meet the requirements of the new one section schedule at all future shows.

CLOSED CUPS for competition amongst members of the Indian Poultry Club only—

1. The United Provinces Poultry Association Challenge Cup for the best bird bred and reared in India by the exhibitor. All India show only. No change. To be awarded as previous.

2 The Nowrajee Challenge Cup no alteration in wording.

3. The Overseas Challenge Cup no alteration in wording.

4. The Harrington Challenge Cup. To be reclassified and to read, "The best Leghorn in the *Show any vareity*, any sex, for competition at All India show only".

*This is subject to alteration as the Honorary Secretary was not able to get into touch with the donor and it has been reclassified subject to the donor's approval.

5. The Assam Challenge Cup. To remain as previous.

6. The Lytton Challenge Cup. To remain as previous.

7. The Lesile Challenge Cup. To remain as previous.

8. The "Utility" Challenge Cup. To be reclassified and to read as follows. The Utility Challenge Cup for the best utility bird in the show, of a standardised utility breed as judged on the British Poultry Club one section standards. For competition at All India and Provincial shows. Presented by Mrs. A. K. Fawkes.

*By this is meant to convey that any bird in the show which is of a standardised utility breed can compete and the donor has asked us to particularly mention that her aim is to encourage the layer whatever the breed.

9. The Goschen Cup. To remain as previous.

10. The Jaipur Cup. To delete the words 'Utility or Exibition' only.

11. The Tosh Cup. Delete only the word 'exhibition'.

12. The Yule Challenge Cup. For the best Australop in the show, either sex to be competed for All India and Provincial shows. Donor Mr. W. E. J. Yule.

OPEN CHALLENCE CUPS. Open to all Exhibitors.

1. The Viceroy's Cup. No change. To remain as previous.

2. The Sahaspur Bilari Challenge Cup. To remain as previous.

3. The Maradabad Challenge Cup. Delete the words 'Exhibition or Utility' only

4. The Sirc Kishen Prosad Cup. To remain as previous.

5. The Pithapuram Challenge Cup. To remain as previous.

6. The Suket Challenge Cup. No alteration but at all future shows this cup will be judged for before class judging and will be the first award made when the judges commence work.

7. The Lacey Challenge Cup. Delete only the *words 'Exibition or Uutility'*.

8. The Lady Jackson Cup. To reman as previous.

Open Specials. These accordingly to number available will be awarded to suit requirements by the show committee having due regard to the new schedule.

Specialist Club awards. No alteration to these.

MAKE YOUR OWN MAGAZINE

THE GREATEST OF THEM ALL !

Find a friend who has not yet seen the "ASSAM REVIEW" and show him or her this month's issue —the "REVIEW" will do the rest !

Mrs. Lamberts Poultry pills for all Ills

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Mrs. TROWER, RESIDENCY ROAD, JODHPUR,
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NUMEROUS UNSOLICITED TESTIMONIALS.
Keep a box always by you as a guarantee against disease.
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SIMLA. S. W.

Specialists in the breeding of Dual purpose White & Black Leghorns and Black Minorcas.
Only the very best specimens mated up for breeding.
Eggs for hatching Rs. 15/- per dozen.
Stock available as the season advances at reasonable prices.
QUALITY IS OUR MOTTO.

Apply :—
Mrs. BATEMAN,
Manageress.
12

BREEDER'S CARD.

Eggs from choicest Asils Rs. 18/- per doz.
From All India Winners ,, 22/- ,, ,,
In each case cash with order
Poultry Cure-all pills Rs. 2/- per pkt.

Eggs are delivered to all purchasers free but pills are sent free to members of the I. P. Club also Asil Club only.

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Dist. ROHTAK.
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? ? ?

IMPORTED PEDIGREED
White Leghorns.

The finest stock available in England, landed 1st October 1930.

Cockerel whose dam and sire's dam laid 525/528 eggs in 24 months, heading a pen of 10 hens with records of 270/288 eggs in 12 months.

Eggs (2 ozs. and over)
Rs. 18/- per dozen.

Mrs. R. POWELL,
11 Kanchrapara, E. B. Rly.

BREEDER'S CARD.

My recently imported LIGHT SUSSEX won at the All-India, January, 1931, Cup for best Sussex in show, also one special, three firsts and one second. Eggs Rs. 10/- per half dozen.

My pen of WHITE LEGHORNS is headed by a cock whose sire's dam laid 322 eggs in twelve months. Eggs Rs. 12/- per dozen.

K. D. GARRISON,
Akola Berar, C. P.

SOUTH INDIAN POULTRY ASSOCIATION.

Yearly subscription Rs. 3. Two poultry shows per annum. Strong working Committee. Expert advice given, post mortem examinations undertaken at nominal charge, members only. Further particulars from Hony. Secy., S.I.P.A., Aruvankadu, Nilgiris.
Exc.

ROBERT'S STAR PILLS.
Nos. 1 and 2.

No. 1 Cures Cholera and green Diarrhoea.
No. 2 Cures Tick Fever and contains directions how to get rid of ticks.
Full instructions with each box. 48 Pills in a box. Re. 1. When ordering write name and address distinctly.
Pills for Turkey chicks during their infancy to pull them through their infant ailments.
Apply A. G. Roberts,
3-B, Museum Road, Bangalore.
2.

PRACTICAL MONTHLY ADVICE TO POULTRY KEEPFRS.

Feeding and accommodation of growing Stock.

What with free range and the use of dry mash the feeding of growing chickens that have passed the delicate stage has become very much simplified, and comparatively little labour is entailed.

Mention has been made of animal food, excess of which tends to promote leg weakness. To correct this tendency it is necessary to supply food that will encourage growth of bone.

Milk is a valuable aid in growing chickens, but it should be used to mix the wet mash, and should not be given to the birds to drink.

It has not been definitely determined whether flint grit is absolutely necessary for chickens, but it is certain that a supply of finely broken charcoal has an excellent effect upon the bowels.

Regular feeding results in steady growth, and that may be one reason why dry mash feeding in so effective, for the chickens are eating more or less continually all day, without any long intervals.

Considering their size, the cost of feeding chickens is comparatively high, for the materials are more expensive than those given to adult stock, since the most nutritious foods must be employed.

It may be said that generous and judicious feed-in is the secret of success in rearing chickens, always assuming that the arrangements for keeping the chicks warm are perfectly satisfactory. In the later stages of growth feeding is the chief factor.

When chickens have passed the stage where warmth is the primary consideration, the most important rules to be observed are to feed generously and regularly, to provide fresh air and sunlight, and to keep the quarters clean and prevent over-crowding.

It is significant that women are generally very successful in rearing chickens, which may be because they are patient and painstaking, and perhaps more observant. It is necessary for every chicken rearer to cultivate the habit of observation

Under favourable conditions many of the earlier-hatched chickens will now have attained the stage where a move to more roomy quarters is imperative, in order to give them every opportunity for healthy development.

It is not sufficient to feed chickens on a generous diet if their progress is prejudiced by limited accommodation. Overcrowding is absolutely fatal, and it is the height of folly to try to raise more chickens than the ground is capable of accommodating.

Sometimes overcrowding occurs through the owner failing to remember how rapidly chickens grow. For example, a coop or brooder may be plenty large enough for the broods when hatched, but it may be sadly overcrowded in a month's time.

Suitable provision must, therefore, be made for moving on the chickens or dividing the broods so that at every stage there is no hindrance to the normal rate of development.

There are many types of houses suitable for this purpose. The old-fashioned "cockerel box," favoured by the fancier, will answer this purpose, especially as by means of a slatted floor it can be turned into an ark.

The Sussex night ark is a very popular type of house for young stock, especially when they can be put on grass land and moved about. This type of house is specially economical as regards labour.

Small colony houses of the 6 feet by 4 feet type are very popular for the accommodation of growing stock.

Some more useful advice about the management of chickens will be found in NEXT MONTH' PRACTICAL ADVICE.

IMPORTED THIS YEAR.

Light Sussex. Settings from Winner Harper Adams Trials. 1st Prize, England.
Rs. 20/- per dozen.

White Orpingtons. 1st Prize. From Rs. 3?- a Trio. Settings Rs. 16/- per dozen.

Cockerels from these two record strains Rs. 20/- each. (8 months old.)

Mrs. M. Ward.

RED GABLES.

12 SHILLONG.

BREEDER'S CARD.

A. O. FODEN,

NARAYANGUNGE.

White-Leghorns.—Imported stock mated to progeny of Imported stock Winners at this year's All India

1st Pen ... Rs. 18/- per sitting of 15

2nd Pen ... Rs. 15/- " " " 15

White Runner Ducks.—Imported stock mated to 1st Generation from Imported stock winners of 2 challenge cups and 2 open specials at this year's All India.

1st Pen ... Rs. 15/- per sitting

2nd Pen ... Rs. 12/8/- " "

Chicks and ducklings.—For the information of my patrons I have, owing to poor service of the Railways in offering quick despatch decided not to send out day old chicks this year to distances of over 200 miles as last season mortality was high owing to delayed delivery. I am still however sending out from 21 days upwards and orders will be undertaken in strick rotation.

Despatch from 1st March onward.

A. C. BULLMORE.

"ARTHURSTON" Poultry Farm

Mount Road, Madras.

Breeder of Highest Pedigree Proflic Laying Exhibition & Utility Poultry.

White Leghorns:—Barrons, Padmans & Tancred 300 Egg Strain.

Rhode Island Reds:—Golden & American Utility, English & American Exhibition Strains

Eggs:—From General Pens (White Leghorns only) - Rs. 7/- dozen, Special Pens - Rs. 15/-, Extra Special Rs. 20/-, Super Special Rs. 25/- dozen.

Infertiles (if any) replaced free.

11

JERSEY BLACK GIANTS.

Eggs from acclimated imported prize birds, excellent layers of large brown eggs.

Rs. 30/- *per dozen.*

Pullets and Cockerels available.

Standard weights.

Cock 12 to 13 lbs. approx.
Hen 10 lbs. approx.

Mrs. FIRTH.

Ajmer, Rajputana.

11

VISVA-BHARATI.

Institute of Rural Reconstruction.

POULTRY FARM.

THE BEST IN BENGAL.

Trains apprentices in scientific Poultry keeping. Awards from the 1927 World's Poultry Congress, Ottawa, Canada, and several Prizes at the All India Poultry Shows

Specialities:—

Rhode Island Reds, W. Leghorns and Chittagongs.

For particulars apply to:—

Director, Sriniketan, P. O. Surul.

9 **BOLPUR**

IMPORTED PENS.

WHITE LEGHORNS—300 egg Tancred strain.

RHODE ISLAND REDS—Iowa State College utility strain.

TURKEYS—First class Indian bred birds.

All laying stock is pedigreed and trapnested.

Eggs Rs. 12/- per dozen, baby chicks, young stock at reasonable prices.

MISSION POULTRY FARM,

Katpadi, South India.

10

BLACK MINORCAS.

Settings of eggs available from my Prize Winning Birds which won highest honours at 1931 All India Poultry Exhibition.

Rs. 12/- for 8 eggs.

Cash with Order. No replacements.

ALL CHARGES PAID.

Orders booked in rotation.

W. E. J. YULE,

2, Fancy Lane, - - CALCUTTA.

IMPORTED PENS.

High Grade Utility Rhode Island Reds.

Won Fund Challenge Cup for Best R. I. R. bred in India

CALCUTTA SHOW 1929.

Setting of 13 Eggs Rs 22/-

Packing and Postage Free.

Pullets, cockerels and hens for sale at reasonable prices as Owner going Home shortly.

TERMS CASH WITH ORDER.

Mrs. WYNDHAM,

LONGVIEW, PANKHABARI,

3 DARJEELING District.

GEORGE HOWARD,

Sperrin Poultry Farm,

Langley, HITCHIN, Herts, England.

Breeder, exhibitor, Exporter of pedigree utility and exhibition poultry. Exports at our own risks and inclusive prices for live delivery Indian ports. Prices from £. 2 per bird.

Absolute satisfaction guaranteed, See further Breeder's Card. See also larger displayed advertisement in Gazette Year Book. Further announcements will appear periodically in this Gazette.

2

Important Announcement.

WHITE LEGHORN EGGS FOR HATCHING.

My well-known strain of hens mated to a newly imported first-class Cock, whose dam's and sire's dam's records are 520/524 in 24 months respectively. Limited number of settings, Rs. 15/- per dozen eggs (15 sent, no replacements; packing and postage free.

Book early to avoid disappointment.

Mrs. O. B. LACEY,

KANCHRAPARA,

Eastern Bengal Railway.

6.

THE Agarpara Estates Poultry Farm

AGARPARA E. B. Ry

(9, MILES OFF CALCUTTA.)

White Leghorns, Black Minorcas. } Tennyson Fawkes Strain.

Rhode Island Reds. C. J Lumsden Strain.

CHITTAGONG RABBITS.

Chickens & Settings at moderate rates.

New Laid-eggs supplied daily in Calcutta.

FATTENED FOWLS ON ORDER.

Write to Manager.

4

UNIQUE EXPORT GUARANTEE.

As your late Secretary and Editor and exporter since leaving India our reputation for square dealing is well known. But in future will export utility poultry on approval *i.e.* if not approved on arrival, send to Calcutta, Rangoon or All India Show for auction and if purchase price not realised we will refund difference. George Howard.

2

When answering Advertisements please mention The INDIAN POULTRY GAZETTE.

CHOLERA—SO-CALLED.

Some Effective Prevetive Measures

by D. Spencer Hatch.

Our last article dealt with the dread disease commonly called cholera. While we believe no one is yet able to gave a satisfactory cure for this disease, preventive measures should be industriously carried out. The preventives and disinfectants suggested can be used for other diseases as well. The first thin is to keep the fowls in the most vigorous health. This is done by carrying out to the best of one's ability the full regime of care and feeding.

INDIGENOUS PREPARATIONS.

It has been interesting to see how indigenous remedies or preventives have been originated in response to the emergency of this disease and how closely those found in use in different parts of South Indian resemble each other. When so virulent a disease is involved I feel that they are little more than tonics, having nothing in them powerful enough to kill the germs of the disease. One rural man states the the idea of these preparations by saying "we mix all our currystuffs together." Here is a typical one which is said to have been used with success in Madras. The following amounts accordin to price are mixed together:—

		Re.	A.	P.
(1)	Dried Ginger ...	0	0	6
(2)	Vasambu	0	0	6
(3)	Asafoetida ...	0	2	6
(4)	Omum	0	0	6
(5)	Seeragam	0	0	6
(6)	Pepper	0	2	0
(7)	Mustard	0	1	0
(8)	Saffron	0	0	6
(9)	Chilies	0	1	0
(10)	Poduthala Keerai ...	0	2	0
(11)	Garlic	0	1	0

All are ground up on a curry stone, mixed to a paste and given in balls. As a general tonic and preventive, a ball the size of the little finger from tip down to nail root to every chicken each morning. For a sick fowl, a ball the size of the tip down to nail-root reported in the after-noon.

PERMANGANATE.

There is probably no better preventive than permanganate of potash in the drinking water, using about one-fourth teaspoonful to a gallon of water. Permanganate is chep and easily obtainable. When disease has attacked a flock each of the birds not affected which will of course be separated from the sick ones, may be given a few permanganate crystals night and morning. This is the preventive measure often given to unaffected persons in a house where human cholera has broken out.

A few drops of tincture of iodine in the drinking water daily may also be used as a preventive.

The Poultry Depatrment of "The Times of Ceylon" gives the following as a preventive and says that it has been used very effectively during the Ceylon epidemic, persons using it not having a single case when the disease was raging all round.

Zinc Sulphocarbolate 30 grains Calcium Sulphocarbolate 15 grains, Sodium Sulphocarbolate 15 grains.

The whole to be mixed in 22 quarts water, 80 oz., and used full strength as drinking water.

The calcium sulphocarbolate is difficult to get. If it cannot be obtained the same amount of the Sodium equivalent may be used instead, making 15 grains each of the zinc and sodium sulphocarbolates to each quart (40 oz. of water). The dinc sulphocarbolate alone may be used too, at the rate of 30 grains to the quart. The value of these drugs as intestinal disinfectants is due to their property of releasing sulphocarbolic acid in the intestines, and so preventing the growth of consecutive organisms. The zinc sulphocarbolate is the most effective of the group, zinc itself being an antiseptic.

The strength given is for times when the epidemic is near. At ordinary times half as much water again is added and used as a preventive. News of experience of any who may use this compound would be appreciated.

Mrs. Fawkes, Poultry Expert to the United Provinces Government, uses and recommends the following for cholera.

"Take flowers of sulphur 4 oz., powdered charcoal 2 oz., pulverised rhubarb 1½ oz., carbonate of iron 4 oz., golden seal ½ oz., pulverised opium ¼ oz., mix and make into pills the size of a pea with a little ghee or treacle or put one teaspoonful of powder into the mash for 12 hens. Keep in air-tight tins."

ALLOW NO VISITORS.

A most necessary precaution when disease is about is absolutely to prevent any fowls coming in from other flocks. Most poultry keepers have neighbours very near who do not fence their fowls. There is great danger of visitors wandering in at any time, bringing the disease. One encouraging thing is that this disease seems not to be borne by air; and we see beautiful flocks untouched by the disease, when all the fowls from adjacent compounds have died off. Free range is always the ideal but, when the disease is about, rather close conlinement is recommended.

Then, do not make the common mistake of bringing in birds from the bazar for table use or for sitting. Let the table fowls be dressed at a distance; and if one has not an incubator it is better to send his eggs out for hatching to those who have sitting hens. The sitting hen in her feverish broody state is more subject to disease. If she has been exposed she develops the disease on the nest. I have seen whole flocks lost from this mistake.

HOW TO DISINFECT.

In the Indian villages people are low to understand the wisdom and necessity of isolating sick birds at once and at a sufficient distance. One often sees so-called isolated birds in an open crate around which healthy birds are moving and even inquisitively looking in. This disease comes so suddenly and the whole house and yards are so quickly contaminated that it is better if possible to move the healthy birds, rather than the sick ones, right away to new quarters.

For disinfecting the grounds the use of fresh air-slacked lime is one of the best methods. Finely powdered lime should be prinkled over the ground until white. It should be raked into the soil a bit to prevent its burning the chickens' feet. In case of bacterial diseases such as this one, phenyle may be used for formaldahyde. Formaldahyde is sold in solution generally 40 or 28 per cent. It is usually easily available locally. Prepare for use at the strength of the half pint (40 per cent.) formaldahyde to ten gallons of water. The walls, ceilings, perches, nests, and floors should be thoroughly soaked. A spray pump is the best for applying this disinfectant. There are several commercial germicides which are also good.

FUMIGATION.

In tropical India we hardly know what a really tight poultry house is. If the poultry house can be closed up very tight fumigation is most effective. Formaldahyde gas is made from 16 ounces of 40 per cent. formaldhyde to 6 ounces of permanganate of potash, per 100 cubic feet of air space. Put the permanganate in a jar in the centre of the room. Pour the formaldahyde over it, close the door quickly and leave it closed for two or three hours. The gas is irritating to the eyes so the operator should get away promptly.

Drinking vessels and small feed troughs etc., can be put in a larger receptacle and boiled in water.

BURYING GROUND.

Burning is preferable to burying for birds which have died of a germ disease, since burying does not necessarily destory the germs. If burying is practised the ground for this should be far away from the poultry yard; and burying should be so deep that dogs or other animals will not dig up the bodies.

A small permanent crematorium can be built with brick or concrete fire box, 2 feet by 1½ feet by 1½ feet inside measurement. Put iron bars across on which to lay the dead bird and have a galvanised iron box about 1½ feet high to set over the fire box and bird to make an incinerating chamber. Keep the fire going until the carcass is reduced to ashes.

WHAT DO YOU KNOW ABOUT FERTILITY?

There's More in a "Live" Egg than Meets the Eye.

By Will Hooley, F.Z.S., F.B.S.A.

At this time of the year, with breeding in full progress, the question of fertility looms up as being most important.

Much that science has done to elucidate many points, there are still many problems to be solved.

Perhaps one should know something about the cells concerned with fertility.

To those who are new to the business, the ever-increasing body of amateurs, let us look very closely at an egg. Take any good shaped egg and break into a cup or basin, then for closer inspection pour the egg into a saucer.

Some will ask: Why not break it into a saucer to begin with? And the answer is: Simply because the yolk may come out of the shell upside down.

Yes, there is a top and a bottom to the yolk, and, given enough fluid, the yolk will always come with the top side uppermost, but it cannot adjust itself in a shallow saucer.

The top—I am only using this term as an illustration—may be known by the presence of a very small white disc on the upper side, and in the centre of the yolk. This is germ cell, and it is here that the new life will begin.

That being so, I must explain away those thick whitish jelly-like strings which appear to be fastened on each side of the yolk, the other ends being lost in the thick, gelatinous white. The office of these strings, which go by the name of chalazoe (a Greek word meaning hailstones, which they are supposed to resemble in colour), is probably two-fold, one to keep the yolk somewhat centrally situated in the shell, and to keep the germ on the upper side to receive the heat from the hen's breast.

They may also serve as a guide for the male germs in their fight upstream to the germ cell, which one must penetrate before a new life can be produced.

The word "germs" has been used, so more than one is inferred, and this is so. Another name for the male germ is spermatozoon.

It is not the intention of this article to go deeply into the question, but to touch on those points which are of practical interest to the poultry man.

Having read so far, one may readily ask if there is more than one male germ in the oviduct, then how many eggs can be fertilised at once?

It is correct that threre may be many, very many, male germs in the oviduct at once, and once there by means of a tail, or "flagella," they propel their way up against stream to the destination. But who can say how many will reach the desired goal? If I even hinted at the enormous numbers that perish, it would sound incredible.

Now the questions will come thick and fast: "Does one coitus fertilise a whole batch of eggs or how many?"

No one can say, so much depends on the vigour of the male. Within the writer's knowledge the number has been in the teens, that is why, when a fancier unfortunately loses a choice male, he goes on sitting the eggs; of course, each sitting has fewer fertile ones in it, but the bird may be so valuable that even one chick from him is worth far more than the other eleven clear eggs.

THE QUESTION OF TWO FATHERS.

The next question, I know, will be: Supposing a new male is introduced, can there be two sets of germs in the oviduct of the fowl, some from the male that has been replaced and some from the one that is present?

The reply is in the affirmative. Although the new influence soon upsets the old, one must wait a time to be absolutely sure of the progeny of the new male.

Probably 10 days is enough, but in a case of a key bird in a line breeding scheme, three weeks to a month would be better, and the less one has to change the better. Otherwise one might have been fertilised by one male, and one by another—but two germs do not enter one cell.

The next question is how soon after the male is introduced are eggs fertile? If the male is active and the females in lay, they are soon fertilised, but one must give time for the eggs already shelled in the oviduct, and the one with a shell membrane on to be duly completed to be laid, before an egg can be fertilised by the new male.

Some may possibly be fertile in three days, and quite a number at the end of a week, so the recognised ten day's probation period is a very useful one to work on.

KEEPING EGGS FOR INCUBATION.

I am often asked the best method of keeping eggs for incubation purposes, and how long can they be kept.

Here again the vitality of the stock is the most important factor, and to get the eggs into the incubators with a week after being laid is usually the aim of the incubatist—others with fewer stock birds wait ten days.

Eggs kept three to siz weeks will hatch, sometimes surprisingly well, but it is not an ideal condition where the incubator is concerned. If means and facilities are afforded, one would fill up the incubators with eggs three to five days old.

How they should be stored is a vexed question. There is the example given us by the hen, who stores them on their side, with the large end possibly canting upwards according to the depth of the nest. Some wild birds place their eggs with the point downwards and wide end upwards, otherwise they could not cover as many as they desire. To store eggs on their sides on a thick towel and cover with another to check undue evaporation is a good plan.

To store them in an egg box with the small end down is also practical and very useful in extremely cold weather.

Stored on the wide end, there is a tendency for the yolk to be crowded up to the small end and stick to the side, but stored on the pointed end, the air cell at the top of the egg prevents this from happening.

Some store in bran, sawdust, etc., but later experience tells me that these methods are not without risk from moulds. Then again, very fine material may stop up some of the pores of the egg.

THE SIZE OF THE SPERM.

The oft-asked question as to whether fertility could be discovered if one broke a few eggs and examined the contents is best answered by describing the size of the wonderful little sperm with its lashing propelling tail.

Whilst the size is not always the same, one must try to figure that something measuring one three-hundredth part of an inch, or less, is what we have to visualise. I put it this way to show how impossible it is to detect fertility by seeing the sperm with unassisted sight.

The most practical way to know if eggs are fertile is to place a sample dozen in an incubator or under hen, and in three days test them in a powerful tester, or break them. If all are clear, the matter needs looking into.

The small white disc on the yolk—alluded to elsewhere—is whitish or opaque all over, but if fertilised, a clear area may be seen in the centre by the aid of a magnifying glass, the sides being opaque, the centre clear, with minute white spots. But it is a matter of great difficulty, and some uncertainty, whereas three days in the incubator, or even less, provides ample evidence of fertility, or the lack of it

ONLY UNFERTILE EGGS REPLACED.

It is only unfertile eggs that are replaced. The buyer should always examine his contract and see how it reads.

The more modern method is to sell 15 eggs to the dozen, and state that there will be no replacements, therefore the buyer has no further claims.

In buying on such a contract it should only be from some well-known person—preferably a member of one or more poultry clubs, or one with a reputation to maintain. But for this an uncrupulous vendor could buy a crate of eggs and send out anything without respect to whether they are fertile or not.

Unfertile eggs are replaced only once. In other words, one cannot keep on sending back unfertiles.

The public should remember that fertility is something the breeder cannot control—he can do his best to secure it, but cannot compel it any more than we can make the fabled horse drink when we take him to the water.

THE DEGENERATION OF THE ASIL, ITS CAUSE AND REMEDY

By B. O. Lloyd.

The Asil which is the oldest breed of fowls and most highly prized by their fanciers, is in my opinion degenerating. I have made a life study of this famous breed of fowls, and my object in writing this article is to give a note of warning to Asil fanciers, before it is too late, as I have reason to believe that at the present rate of degenration it will not be long before the whole breed will be bantamised.

This is most marked in the United Provinces and in such towns as Bareilly, Lucknow and Moradabad, which I have visited, the system of inbreeding which is carried out by Asil fanciers is obviously the cause.

The real facts are that in the United Provinces fanciers keep their own strain, which they have evolved from proved fighters, and would scorn to infuse fresh blood into their stock, with results which I have already stated.

It is with pleasure I have remarked that in the United Provinces the Asil fanciers, amongst whom there are several of the poor class, will not on any account sell their birds, being quite aware of their value in the pit. I am also pleased to note that there are still fanciers of the Rheis class, and to these I appeal to, with the hope that they will do all in their power to preserve a breed of fowls, which has no equal in the fighting ring.

My plan is to ask recognised Asil fanciers to sell or exchange their birds with each other, and thus save the Asil from extinction.

LETTERS TO THE EDITOR.

(We give extracts of a letter from a reader and would be pleased to publish other readers views on same.)

DEAR SIR,

......I dont think there is inything the "Indian Poultry Gazette" could teach me........................

I am perfectly convinced that poultry farming in India will never pay so long as people refuse to pay for the better class of egg and rely on the Khansama to supply them with eggs from the Bhangi and Khatik whose fowls feed on dung and garbage heaps!!!

Yours faithfully,
(*Sd.*) S. F.

DEAR SIR,

I will feel much obliged if you will be kind enough to enlighten me regarding a few points at the last All India Poultry Show held in Calcutta January this year. In the schedule sent to me class No. 97 was for children under 16 year of age. I find that class No. 36 was awarded the prize. Can class No. 36, compete in class No. 97, or *vice versa*. It seems to me that the schedule sent for entering birds was incorrect. The bird in class No. 97 had been given a card on his cage First Prize, but the owner has not received may prize or even a Certificate of Merit, as per Indian Poultry Gazette. Please insert this latter in your next issue.

Thanking you.

Yours faithfully,
(*Sd.*) A. L. SIMPSON.

EDITOR'S REMARKS.

It would appear that the answer to this is that exhibit No. 173, won the class award for Class No. 97, but that the open special for the best bird exhibited by child of under 16 years was won by Master Weingartner who preferred to exhibit his birds in open competition. While he could not compete for class 97 he of course could compete for the open special as it does not stipulate for birds only entered in class 97.

Our Honorary Show Secretary's remarks will be published in due course.

? ? ?

Questions under this heading are answered free of charge on this page.

Letters should be addressed—BUFF ROCK,
C/o. The Hon. Editor, I. P. GAZETTE and marked "Query".

Where readers desire an individual reply they should enclose a stamped addressed envelope and a fee of As. -/8/- is charged.

Mrs. K. *Mukteerpur.*—Usually the sex of this breed is apparent at about 2 months and it is advisable to seperate as soon as you are sure which are males and which are females. I should suggest you wire off a run about 20 by 20 feet with a house about 6 feet by 4 feet by 5 feet high and make this your cockerel pen putting all the young roosters into this either for fattening or if you sell off surplus males as well divide into 2 parts one side for fattening and the other for your saleable young birds. The pullets can remain in the present run as suggested. The feeding is quite good and should keep them growing steadily.

Mr. W. *Ranchi.*—You do not mention the breed as to if heavies or light breed, if the latter then the house and run size is about right but for heavies I think you are cramping them for space more especially if your nest boxes are internal and not external which will give another few cubic feet of space. I agree with you that you should under the circumstances put them on a dry mash and I suggest the following.—1 part Maize meal, 1 part Barley meal, I part Biscuit meal, ½ part Fish meal, ½ part Bone meal, 3 parts Wheat Bran, salt 1 oz. to 4 lbs., Charcoal 1 oz. per 2 lbs. The addition of a good spice in moderation such as Karswood or Ovum. This mash can remain in front of the birds 2 hours A.&. and 2 hours P.M. and the birds allowed to eat their fill. Midday green food and a few ozs., of meat scraps. If you have facilities for free range for a few hours a day I should let them roam about and pick up what animal food they can.

Mr. G. *Karnal.*—The size of house should be 15 by 6 by 6 feet providing of course you are giving the birds a good run attached but if you want to keep them penned all day you will need a house 30 by 10 by 6 feet. A pucca floor is a more sanitary and time saving way and is to be recommended. I prefer boarded walls but whatever you use you will run the risk of lice, etc., if you do not limewash and disinfect regularly. The book you require is *'Poultry Farming in the East'.* Salt is very good for birds if used properly but the other condiment is not advisable as it tends to set up digestive trouble and irritate the crop.

Mr. T. *Benares.*—Flit is of little use for the purpose you suggest. I suggest you use a mixture of I pint Phenyle 1 Gall Water. Spray this into all the cracks and crevices and when dry limewash the houses out properly adding a little kerosine to the limewash.

Mr. R. *Murshidabad.*—I would not advise this breed as a utility breed they are more for fighting and exhibition. 2) My choice would be from the Wh Leghorn, Sussex, or R. I. Red. (3) Look through the breeder's cards for the breed selected.

Mr. W. *Calcutta.*—I am afraid the mistake is yours and the Indian Poultry Club cannot help you. In future purchase through the Gazette and the Club can take the matter up for you and obtain redress or bring the seller to light through our pages I am however handing your letter over to the Honorary Editor to take what action he thinks possible.

Mr. F. *Digboi.*—I do not think the trouble is in the incubation. You must look back further and I think you will find the trouble is in the feeding of the breeding pen. Your feeding table is not too bad and I only advise cutting the gram right out. The amount you are giving is about double what they should have and I think you will find the birds very fat. Feed only 2 ozs., per bird in the morning and make them work to get it. For the mash increase the bran by 2 parts more and allow a medium sized handful only per bird. Feed at sundown. Give more green food.

Mrs. S. *Calcutta.*—I do not think you have a lot to grumble at with the results of the two hatches but if you are running the machine again check the temperature by putting the bulb of the thermometer about 1/8th of an inch above the top of an egg and adjust the heat to 103½. It is always advisable to have a second thermometer in the front of the machine to check differences and if great try experiments with the level of the machine.

Mr. E. *Sylhet.*—I should advise you to try a dry mash and a good mash formula will be found in the reply to Mr. W. Ranchi.

TO LET

Apply—

To the Hon. Editor,

A. O. FODEN,

Narayangunj,

E. BENGAL.